

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for sending a message from a service center system to a remote, portable wireless system over an intermittently available communications network, comprising:

providing a first message queue for the service center system to store the status of the message;

providing a second message queue for the remote, portable wireless system ~~to store the status of each message received;~~

connecting a host message agent to the first message queue;

connecting a remote message agent to the second message queue;

passing the message from the first message queue to the host message agent;

~~updating~~ setting the status of the message in the first message queue;

determining that communication over the intermittently available communications network between the service center system and the remote, portable wireless system has been interrupted;

holding the message and the message status in the first message queue during the interruption;

automatically reconnecting the remote, portable wireless system to the intermittently available communications network;

determining that the communication over the intermittently available communications network between the service center system and the remote, portable wireless system has been reestablished, and automatically transmitting sending the message from the host message agent over the intermittently available communications network to the remote message agent across a communications medium;

passing the message from the remote message agent to the second message queue;
and

~~updating the status of the message in the second message queue;~~

~~sending an acknowledgment of the message from the remote message agent to the host message agent across the communications medium;~~

updating the status of the message in the first message queue;
wherein at least a portion of the intermittently available communications network comprises a wireless communications network and the message is transmitted at least in part over the wireless communications network.

2. (Cancelled).

3. (Cancelled).

4. (Cancelled).

5. (Cancelled).

6. (Cancelled).

7. (Currently Amended) A system for sending a message from a service center system to a remote, wireless system, comprising:

a first message queue in communication with the service center system;

a host message agent in communication with the first message queue;

a remote message agent in communication with the host message agent via a ~~communications medium~~ an intermittently available wireless communications network;
and

a second message queue ~~attached to~~ in communication with the remote message agent ~~to~~ with the remote, wireless system;

wherein the first message queue is configured to store the message and the status of the message, and to receive updates to the status of the message from the host message agent, and the service center system determines when communication with the remote, wireless system, over the intermittently available wireless communications network, has been interrupted, and the host message agent sending is configured to send the message to the remote message agent across the communications medium over the intermittently available wireless communications network upon determining that communication with

the remote, wireless system has been reestablished, the remote message agent ~~sending~~ configured to send an acknowledgement of the message to the host message agent upon receipt of the message, and the remote message agent ~~passing~~ configured to pass the message to the second message queue for access by the remote system.

8. (Cancelled).

9. (Cancelled).

10. (Cancelled).

11. (Cancelled).

12. (Withdrawn) A method of managing service information at a remote system, comprising:

receiving a work order, including service specific data for a requested service for equipment, wherein said work order includes tasks to be performed while providing said requested service;

displaying the work order on a touch sensitive display of said remote system;

checking off one or more of the displayed tasks by touching a portion of the touch sensitive display related to a corresponding task;

transmitting a parts order related to said requested service;

receiving a customer's signature entered on said display; and

closing the work order.

13. (Withdrawn) The method as defined in Claim 12, further comprising transmitting status information related to said requested service to a service center.

14. (Withdrawn) The method as defined in Claim 12, further comprising receiving a service history of said equipment.

15. (Withdrawn) The method as defined in Claim 12, further comprising:
providing a first icon towards a first side of said touch sensitive display, said first icon sized to be activated by an operator's first thumb, wherein activation of said first icon causes a cursor to move in a first direction; and
providing a second icon towards a second side of said touch sensitive display, said second icon sized to be activated by an operator's second thumb, wherein activation of said second icon causes said cursor to move in a second direction
16. (Withdrawn) The method as defined in Claim 12, wherein said remote system executes a Windows CE operating system.
17. (Withdrawn) The method as defined in Claim 12, wherein said work order is viewable using an Internet HTML-compatible browser executing on said remote system.
18. (Withdrawn) A method of managing service information at a service center, comprising:
receiving a customer request for service;
automatically selecting which technician should provide the requested service;
generating a work order, including service specific data for the requested service, wherein at least a portion of service specific information is automatically entered from a database;
sending the work order to the selected technician; and
receiving confirmation that the work order was received.
19. (Withdrawn) A method as in Claim 18 where the step of sending the work order to the selected technician comprises transmitting the work order over a wireless network to a remote system associated with the technician.
20. (Withdrawn) The method as defined in Claim 18, wherein the technician is selected based on at least the technician's proximity to the equipment to be serviced.

21. (Withdrawn) The method as defined in Claim 18, wherein the technician is selected based on at least a customer preference.

22. (Withdrawn) The method as defined in Claim 18, further providing the technician with instructions on how the service is to be performed.

23. (Withdrawn) The method as defined in Claim 19, further providing the technician with a procedures form displayed on a touch sensitive display of said remote system, wherein the form includes service instruction steps which are configured to be checked off by the technician as the steps are completed.

24. (Withdrawn) The method as defined in Claim 19, further providing the technician with a catalog of parts which may be need for the service operation.

25. (Withdrawn) A system including a server couplable to a plurality of client computers, said server configured to execute instructions comprising at least:

a first instruction used receive a customer request for equipment service;

a second instruction used to select which technician should provide the requested service;

a third instruction configured to generate a work order based on at least the customer request;

a fourth instruction configured to transmit the work order over a wireless network to a first client computer associated with the selected technician; and

a fifth instruction configured to receive confirmation via the first client computer that the work order was received.

26. (Withdrawn) The system as defined in Claim 25, further comprising:

a first client computer, where said first client computer is coupled to said server;

and

a second client computer coupled to said server, wherein said first client computer is associated with a first service company and said second client computer is associated with a second service company.

27. (Withdrawn) The system as defined in Claim 25, further comprising said first client computer networked to said server, wherein if said network is interrupted, said first client computer operates autonomously.

28. (Withdrawn) The system as defined in Claim 25, further comprising a pager coupled to receive information related to the work order from the server.

29. (Withdrawn) The system as defined in Claim 25, wherein said work order is generated as an HTML-compatible form readable using a browser executing on said first client.

30. (Withdrawn) The system as defined in Claim 25, wherein said server provides data to said client computers using at least a first customizable template.

31. (Withdrawn) The system as defined in Claim 25, wherein said server receives status data from at least said first client computer, and uses the status information to generate a bill.

32. (Withdrawn) A method of transmitting a work order, comprising:
providing a selection of protocols from which the user can choose at least one to be used to transmit data, said data including at least a work order;
receiving a protocol selection from said user;
generating a work order using a service center system in response to a service request; and
transmitting said work order to a remote system using said selected protocol.

33. (Withdrawn) The method as defined in Claim 32, where said remote system executes a Windows operating system.

34. (Withdrawn) The method as defined in Claim 32, where said remote system executes a Windows CE operating system.

35. (Withdrawn) The method as defined in Claim 32, where said remote system executes a Palm operating system.

36. (Withdrawn) A method of transmitting a service-related message from a service center system to a remote system over a wireless network, comprising:

generating a service-related message in said service center system;

providing the service-related message to a first software module executing in said service center system;

transmitting the service related message from the first software module over the Internet to a radio frequency cell transmitter which forms part of a wireless network; and

transmitting the service-related message from the cell transmitter to a second software module executing in the remote system, wherein said remote system further executes field service software.

37. (Withdrawn) The method of Claim 36, wherein said first software module is a host messaging agent, and second software module is a remote messaging agent.

38. (Withdrawn) The method of Claim 36, wherein the structures of said first software module and said first software module are symmetric.

39. (Withdrawn) The method of Claim 36, wherein said first software module and said first software module use the same application program interface.

40. (Withdrawn) The method of Claim 36, further comprising making the first software module appear logically connected directly to said wireless network.

41. (Withdrawn) The method of Claim 36, wherein the service related message is transmitted only once over said wireless network.

42. (Withdrawn) The method of Claim 36, wherein said first software module is configured to transmit data at a first rate, and second software module is configured to receive data at a second rate which is different than said first rate.

43. (Withdrawn) A method of transmitting a service-related message from a server to a client over a wireless network, comprising:

generating a service-related message in said server;

determining that the client is disconnected from the server;

storing the service-related message in a queue while the client is disconnected;

and

transmitting the service-related message from the queue to the client when the client is reconnected to the server.

44. (Withdrawn) A method of providing a computer user interface comprising:

displaying a first tab associated with a first page on a touch-sensitive portable computing device display, wherein said first tab is sized to be activated by an operator's first thumb; and

displaying a second tab associated with a second page on said touch-sensitive portable computing device display, wherein said second tab is sized to be activated by an operator's second thumb


45. (New) The method as in Claim 1 wherein at least a portion of the intermittently available communications network comprises the Internet and the message is transmitted at least in part over the Internet; and wherein the remote, portable wireless system communicates with the intermittently available communications network directly via the wireless communications

network; and wherein the wireless communications network comprises a cellular radio frequency network.

46. (New) The method as in Claim 1 wherein at least a portion of the intermittently available communications network comprises the Internet and the message is transmitted at least in part over the Internet; and wherein the remote, portable wireless system communicates with the intermittently available communications network directly via the wireless communications network.

47. (New) The method as in Claim 1 wherein the service center selects a first protocol from a plurality of available protocols for transmitting the message.

48. (New) The method as in Claim 1 wherein at least a portion of the intermittently available communications network comprises the Internet and the message is transmitted at least in part over the Internet.

 49. (New) The method as in Claim 1 wherein the wireless communications network comprises a cellular radio frequency network.

50. (New) The method as in Claim 1 wherein the message is transmitted at least in part over at least one of a land line telephone connection, an analog cellular telephone connection, a digital cellular telephone connection, a pager network, and a television cable network.

51. The method as in Claim 1 wherein the message is transmitted at least in part using radio frequency communication.

52. (New) The system as in Claim 7 wherein the host message agent is configured to repeatedly transmit the message to the remote, portable system until an acknowledgement is received.

53. (New) The system as in Claim 7 wherein the message is transmitted at least in part over the Internet.

54. (New) The system as in Claim 7 wherein the message is transmitted at least in part over the Internet; and wherein the intermittently available wireless communications network comprises a cellular radio frequency network.


55. (New) The system as in Claim 7 wherein the intermittently available wireless communications network comprises a cellular radio frequency network.

56. (New) A method for communicating messages over a wireless communications network, comprising:

storing a first message in a queue to be sent between a first system and a portable, wireless system, the portable, wireless system being coupled, at least in part via a wireless communications network, to the first system;

sending the first message; and

determining whether an acknowledgement associated with the first message has been received and, if an acknowledgement associated with the first message has not been received, resending the message.

 57. (New) The method as in Claim 56 wherein a status is associated with the message and the method further comprises:

determining whether an acknowledgement associated with the message has been received and, if an acknowledgement associated with the first message has been received, updating the status associated with the message.

58. (New) The method as in Claim 56 further comprising:

receiving a second message from a portable, wireless system; and

sending an acknowledgement associated with the second message to the portable, wireless system.

59. (New) The method as in Claim 56 wherein the portable, wireless system is coupled to the service center system via an intermittently available communications network; the intermittently available communications network comprises the wireless communications

network; and the wireless communications network comprises a cellular radio frequency network.

60. (New) The method as in Claim 56 wherein the portable, wireless system is coupled to the service center system via an intermittently available communications network; the intermittently available communications network comprises the wireless communications network; the intermittently available communications network further comprises the Internet; and the wireless communications network comprises a cellular radio frequency network.

61. (New) The method as in Claim 56 wherein the wireless communications network comprises a cellular radio frequency network.

62. (New) The method as in Claim 56 wherein the first message is transmitted by the portable, wireless system.

63. (New) The method as in Claim 56 wherein the first message is transmitted by the first system.
